

REMARKS

Claims 1-25 are pending in this application. By this Amendment, claims 1, 3 and 17 are amended. Reconsideration of the application is respectfully requested.

Applicant thanks the Examiner for the indication that claims 7, 14, 16 and 22-25 contain allowable subject matter.

The Office Action objects to the specification because the title is not descriptive. The title is amended to overcome the objection to the specification. Accordingly, withdrawal of the objection to the specification is respectfully requested.

The Office Action rejects claims 1, 10-11 and 20 under 35 U.S.C. §102(e) over Sugahara et al. (U.S. Patent No. 6,778,210); claims 2, 5, 12 and 21 under 35 U.S.C. §103(a) over Sugahara in view of Horiuchi et al. (U.S. Patent No. 6,037,972); claims 3 and 17 under 35 U.S.C. §103(a) over Sugahara in view of Horiuchi and further in view of Konishi et al. (U.S. Patent No. 5,420,635); claim 6 under 35 U.S.C. §103(a) over Sugahara in view of Horiuchi, in view of Yamazaki et al. (U.S. Patent Application Publication No. 2002-0044772) and further in view of Konishi; claim 4 under 35 U.S.C. §103(a) over Sugahara in view of Horiuchi and further in view of Allen et al. (U.S. Patent No. 5,430,480); claims 8 and 9 under 35 U.S.C. §103(e) over Sugahara in view of Horiuchi and further in view of Tamura et al. (U.S. Patent No. 6,040,860); claims 13 and 15 under 35 U.S.C. §103(a) over Sugahara in view of Horiuchi and further in view of Mathew et al. (U.S. Patent No. 6,628,711); and claims 18 and 19 under 35 U.S.C. §103(a) over Sugahara in view of Horiuchi, in view of Mathew and further in view of Konishi. The rejections are respectfully traversed.

In particular, none of the applied references, either alone or in combination, disclose or suggest a digital camera comprising an image generating device that generates a plurality of sets of image data through successive image capturing operations performed over varying exposure times by controlling the image capturing device and the exposure control device, the

exposure times being different from one another, as recited in independent claim 1.

Moreover, none of the applied references, either alone or in combination, disclose or suggest an image processing system that includes a digital camera and an image processing apparatus that generates third image data by correcting at least a high frequency component of a spatial frequency contained in the second image data based upon the first image data and the second image data generated by the digital camera, as recited in independent claim 21.

Sugahara teaches an image pickup apparatus that includes a CCD image pickup device, a preprocessed circuit for generating image signals based on output of the image pickup device, a CCD driver for controlling charge accumulation time of the image pickup device and a pickup image generating section for generating a pickup image signal (Abstract). Moreover, Sugahara teaches that the necessary exposure time is equally divided into the least number of exposures each having an exposure period less than the limit (Col. 7, lines 18-20). Accordingly, Sugahara fails to disclose or suggest performing image capturing operations over varying exposure times, the exposure times being different from one another, as recited in independent claim 1 because Sugahara intentionally sets the exposure times to be identical to each other, while claim 1 recites that the exposure times are different from one another. Accordingly, Sugahara fails to disclose or suggest each and every feature of independent claim 1.

Also, the Office Action admits that Sugahara fails to disclose or suggest an image processing system that includes an image processing apparatus that generates third image data by correcting a high frequency component of a spatial frequency contained in the second image data based upon the first image data and the second image data, as recited in independent claim 21 (Office Action, page 7, lines 6-10). The Office Action alleges that Horiuchi teaches this feature. However, Horiuchi merely teaches that the automatic focus adjustment may be carried out by a known blur detecting method on the basis of a high

frequency video signal coming from the solid state image pickup element 13 (Fig. 1). In contrast to the present invention, the blur detecting method taught by Horiuchi is a contrast detecting method for adjusting a focus state, and does not correspond to the blur that is taught in the present application, which is caused by unsteady camera movement. In Horiuchi, the focus adjustment is performed by moving a focal point in a direction perpendicular to an image plane, and a maximum contrast is sought so as to achieve a focused image in Horiuchi's contrast detecting method. Accordingly, Horiuchi seeks to achieve the sharpest subject image with the maximum contrast. Accordingly, the blur in Horiuchi in fact represents a lack of sharpness, which is different than the blur in the present application which is defined in the specification at, for example, page 2, line 1 and page 22, lines 24-25 as being an image blur caused by camera movement or unsteady hand movement. Accordingly, the correction of a blur that is caused by unsteady camera movement is performed by moving a focal point in a direction parallel to an image plane after focus adjustment, and not by moving a focal point in a direction perpendicular to the image plane in order to achieve a maximum contrast, as taught by Horiuchi. Thus, Horiuchi's blur correction is different than the blur correction in the current application. Accordingly, Horiuchi fails to cure deficiencies in Sugahara in disclosing or rendering obvious the features of independent claim 21.

Konishi teaches an imaging method where a suitable image is obtained when the difference in luminance between a bright area and a dark area is very large (Abstract).

Yamazaki teaches a focus detecting device consisting mainly of a light receiving sensor, a reflecting mirror, a first detection circuit, and a focus detection circuit (Abstract).

Allen teaches a motion sensor mounted within a camera that measures motion data such as translation, rotation and zoom (Abstract).

Tamura teaches a gradation compensation circuit for gradation compensating the luminance level of an image signal (Abstract).

Mathew teaches an apparatus for compensating for jitter in a digital image forming part of a video sequence of such digital images that includes a first motion estimation unit having an input for receiving sensed image date and an output for providing a plurality of motion vectors (Abstract).

Accordingly, none of the applied references, either alone or in combination, cure deficiencies in Sugahara and in Horiuchi in disclosing or rendering obvious the features of claims 2-6, 8-13, 15 and 17-20, including the limitations of independent claims 1 and 21. As such, independent claims 1 and 21, and their dependent claims, are patentable over a combination of the applied references. Thus, withdrawal of the rejections of the claims under 35 U.S.C. §102(e) and 35 U.S.C. §103(a) is respectfully requested.

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-25 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Attachment: Petition for Extension of Time

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